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Attorney's Docket No.: 08919-075001 / 07A-900806

2881

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Huan-Cheng Chang et al. Art Unit : 2881  
Serial No. : 10/034,459 Examiner : Unknown  
Filed : December 28, 2001  
Title : ION TRAP MASS SPECTROMETER

Commissioner for Patents  
Washington, D.C. 20231

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449, copies of which are enclosed.

This statement is being filed before the receipt of a first Office action on the merits.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: May 29, 2002

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Sheet 1 of 2

Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08919-075001	Application No. 10/034,459
	Applicant Huan-Cheng Chang et al.		
	Filing Date December 28, 2001	Group Art Unit 2881	

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						

**Foreign Patent Documents or Published Foreign Patent Applications**

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AH							
	AI							
	AJ							
	AK							

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AL	Bohren and Huffman, "Absorption and scattering of light by small particles" (Table of Contents only) (1983)
	AM	Bruce et al., "Trapping, Detection, and Mass Measurement of Individual Ions in a Fourier Transform Ion Cyclotron Resonance Mass Spectrometer", <i>J. Am. Chem. Soc.</i> , 116:7839-7847 (1994)
	AN	Cheng et al., "Charge-State Shifting of Individual Multiply-Charged Ions of Bovine Albumin Dimer and Molecular Weight Determination Using an Individual-Ion Approach", <i>Anal. Chem.</i> , 66:2084-2087 (1994)
	AO	Cleven et al., "Radial Distributions and Ejection Times of Molecular Ions in an Ion Trap Mass Spectrometer: A Laser Tomography Study of Effects of Ion Density and Molecular Type", <i>J. Phys. Chem.</i> , 100:40-46 (1996)
	AP	Cox et al., "Mass shifts and local space charge effects observed in the quadrupole ion trap at higher resolution", <i>International Journal of Mass Spectrometry and Ion Processes</i> , 144:47-65 (1995)
	AQ	Davis, "A History of Single Aerosol Particle Levitation", <i>Aerosol Science and Technology</i> , 26:212-254 (1997)
	AR	Fenn et al., "Electrospray Ionization for Mass Spectrometry of Large Biomolecules", <i>Science</i> , 246:64-71 (1989)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Disclosure Form (PTO-1449)

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	Filing Date December 28, 2001	Group Art Unit 2881	

**Other Documents (include Author, Title, Date, and Place of Publication)**

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	AS	Fuerstenau and Benner, "Molecular Weight Determination of Megadalton DNA Electrospray Ions Using Charge Detection Time-of-flight Mass Spectrometry", <i>Rapid Communications in Mass Spectrometry</i> , 9:1528-1538 (1995)
	AT	Fuerstenau et al., "Mass Spectrometry of an Intact Virus", <i>Angew. Chem. Int. Ed.</i> , 40:542-544 (2001)
	AU	Gerlich et al., "Experiments with Trapped Ions and Nanoparticles", Faculty of Natural Science, Technical University of Chemnitz, Chemnitz, Germany, 149-154
	AV	Hars and Tass, "Application of quadrupole ion trap for the accurate mass determination of submicron size charged particles", <i>J. Appl. Phys.</i> , 77:4245-4250 (1995)
	AW	Hunter and Lias, "Evaluated Gas Phase Basicities and Proton Affinities of Molecules: An Update", <i>J. Phys. Chem. Ref. Data</i> , 27:413-416 (1998)
	AX	Kaiser, Jr. et al., "Operation of a Quadrupole Ion Trap Mass Spectrometer to Achieve High Mass/Charge Ratios", <i>Int. J. Mass Spectrom. Ion Processes</i> , 106:79-115 (1991)
	AY	Londry et al., "Enhanced Mass Resolution in a Quadrupole Ion Trap", <i>Rapid Communications in Mass Spectrometry</i> , 7:43-45 (1993)
	AZ	March, "Quadrupole ion trap mass spectrometry: a view at the turn of the century", <i>Int. J. Mass Spectrom.</i> , 200:285-312 (2000)
	AAA	March and Hughes, "Quadrupole Storage Mass Spectrometry", <i>Chemical Analysis</i> , 102 (Table of Contents only) (1989)
	ABB	March and Londry, "Theory of Quadrupole Mass Spectrometry", <i>Practical Aspects of Ion Trap Mass Spectrometry</i> , 1:25-48 (1995)
	ACC	McLucky et al., "Novel quadrupole ion trap methods for characterizing the chemistry of gaseous macro-ions", <i>Int. J. Mass Spectrom.</i> , 200:137-161 (2000)
	ADD	Noble and Prather, "Real-Time Single Particle Mass Spectrometry: A Historical Review of a Quarter Century of the Chemical Analysis of Aerosols", <i>Mass Spectrometry</i> , 19:248-250 (2000)
	AEE	Nohmi and Fenn, "Electrospray Mass Spectrometry of Poly(ethylene glycols) with Molecular Weights up to Five Million", <i>J. Am. Chem. Soc.</i> , 114:3241-3246 (1992)
	AFF	Schlemmer et al., "Nondestructive high-resolution and absolute mass determination of single charged particles in a three-dimensional quadrupole trap", <i>Journal of Applied Physics</i> , 90:5410-5418 (2001)
	AGG	Schlunegger et al., "Frequency Scan for the Analysis of High Mass Ions Generated by Matrix-assisted Laser Desorption/Ionization in a Paul Trap", <i>Rapid Commun. Mass Spectrom.</i> , 13:1792-1796 (1999)
	AHH	Syka, "Nonlinear Ion Traps", <i>Practical Aspects of Ion Trap Mass Spectrometry</i> , 1:153-166
	AII	Tang and Gomez, "On the structure of an electrostatic spray of monodisperse droplets", <i>Phys. Fluids</i> , 6:2317-2332 (1994)
	AJJ	Van Berkel et al., "Electrospray Ionization Combined with Ion Trap Mass Spectrometry", <i>Anal. Chem.</i> 62:1284-1286 (1990)
	AKK	Wang and Franzen, "The non-linear ion trap. Part 3. Multipole components in three types of practical ion trap", <i>Int. J. Mass. Spectrom. Ion Processes</i> , 132:155-157 (1994)
	ALL	Winter and Ortjohann, "Simple demonstration of storing macroscopic particles in a 'Paul trap'", <i>Am. J. Phys.</i> 59:807-813 (1991)

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